

AMENDMENTS TO THE CLAIMS

Please cancel Claim 30, without prejudice.

Please amend Claims 1, 7, 9-13, 17, 24, 31-41 and 45.

Please add Claims 46-50.

1. (Currently amended) A method of configurably profiling data comprising the steps-of:

receiving data from an input data stream;

pre-processing the received data by performing configurable first calculations thereon to create data relating to profiling features;

summarising summarizing the profiling features data over a length of time, wherein the summarizing comprises i) dividing the length of time into a number of non-overlapping time-slots, ii) storing the profiling features data in one or more of the time-slots according to time information associated with or included in the profiling features data, and by iii) performing configurable second calculations ~~thereon~~ on the profiling features data to create summarised summarized data relating to profiled features; and

~~post-processing~~ post-processing the summarized profiled features data by performing configurable third calculations thereon to create a profiled output data stream for further processing.

2. (Original) A method according to claim 1, wherein the pre-processing includes receiving feedback data, which is used in the first calculations to create the data relating to profiling features, wherein the post-processing creates the feedback data from the third calculations.

3. (Original) A method according to claim 1, wherein the first calculations comprise applying a linear calculation to one or more sub-streams of the data.

4. (Original) A method according to claim 3, wherein the linear calculation does not alter the data.

5. (Original) A method according to claim 1, wherein intermediate results of the first calculations are temporarily stored for use in further first calculations.

6. (Original) A method according to claim 1, wherein each profiling feature is reconfigurably flagged as changed or unchanged to indicate whether or not the input data stream has changed from a previous input.

7. (Currently amended) A method according to claim 1, wherein the ~~behaviours~~ behaviors of the profiling features data are ~~summarised~~ summarized over ~~a number of non-overlapping time-slots~~ the time-slots, and wherein the time-slots are of configurable length.

8. (Original) A method according to claim 1, wherein profiling features data independent of start and end times of events are stored in a scratch pad memory.

9. (Currently amended) A method according to claim ~~7~~1, wherein the profiling feature data is stored in one of the time-slots that corresponds with when an event that caused the profile to be updated started or ended.

10. (Currently amended) A method according to claim ~~7~~1, wherein the profiling feature data is stored in every time-slot during which the event was in progress.

11. (Currently amended) A method according to claim ~~7~~1, wherein each new instance of data falling within ~~a time-slot~~ one of the time-slots overwrites data already in that ~~time-slot~~ time-slot.

12. (Currently amended) A method according to claim 7, wherein the data in the ~~time slots~~ time-slots is accumulated.

13. (Currently amended) A method according to claim ~~7~~1, wherein the ~~time-slots~~ time-slots are configured to wrap, such that if an update to the profiling features goes beyond the end of the ~~last-(most recent)-slot~~ time-slot, it wraps around to the ~~first-(oldest)-slot~~ time-slot and overwrites the data and creates an event message.

14. (Original) A method according to claim 1, wherein an event message is created when the profiler receives its first input.

15. (Original) A method according to claim 14, wherein the second calculations include using event messages to trigger specified rules.

16. (Original) A method according to claim 1, wherein event messages form part of the data relating to profiled features for post-processing.

17. (Currently amended) A method according to claim ~~7~~8, wherein the data relating to profiled features comprises information in the ~~time-slots~~ time-slots and scratch page memory.

18. (Original) A method according to claim 1, wherein the third calculations include identifying potential indicators of the event sought.

19. (Original) A method according to claim 1, wherein the third calculations include preparing the output data stream for further processing to identify indicators of the event sought.

20. (Original) A method according to claim 1, wherein intermediate results of the third calculations are temporarily stored for use in further third calculations.

21. (Original) A method according to claim 1, wherein each output data feature is reconfigurably flagged as changed or unchanged to indicate whether the profiled data stream has changed from a previous input or not.

22. (Original) A method according to claim 1, wherein the data is profiled to detect possible instances of fraud.

23. (Original) A method according to claim 22, wherein the method is for use with a fraud detection system.

24. (Currently amended) A configurable data profiling system comprising:

a pre-processor arranged to receive an input data stream, the pre-processor also configured to perform configurable first calculations on the input data to create data relating to profiling features;

a profiler configured to ~~summarise~~ summarize the profiling features data over a length of time according to configurable second calculations to create ~~summarised~~ summarized data relating to profiled features, wherein the length of time is divided into a number of non-overlapping time-slots, and the profiler comprises a memory configured to store the profiling features data in one or more of the time-slots according to time information associated with or included in the profiling features data; and

a post-processor configured to perform configurable third calculations on the summarized profiled features data to create profiled output data for further processing.

25. (Original) A system according to claim 24, wherein the pre-processor is arranged to receive feedback data and perform the first calculations on the input and feedback to create the data relating to profiling features, wherein the post-processor is configured to perform configurable third calculations on the profiled features data to create the feedback data and the

profiled output data, wherein the system further comprises a means for providing the feedback data to the pre-processor.

26. (Original) A system according to claim 24, wherein the pre-processor is configured to apply a linear calculation to one or more sub-streams of the input and feedback data.

27. (Original) A system according to claim 24, wherein the pre-processor comprises a temporary storage for storing intermediate results of the first calculations.

28. (Original) A system according to claim 24, wherein the pre-processor comprises means for reconfigurably flagging to the profiler whether each profiling feature is as changed or unchanged.

29. (Original) A system according to claim 24, wherein the profiler comprises a memory for storing profiling features data independent of start and end times of events.

30. (Cancelled)

31. (Currently amended) A system according to claim ~~30~~24, wherein the plurality of non-overlapping ~~time-slots~~ time-slots are configured to store the ~~summarised-behaviours~~ summarized behaviors of the profiling features data.

32. (Currently amended) A system according to claim ~~29~~24, wherein the profiler is configured to store the ~~summarised-behaviours~~ summarized behaviors of the profiling features data in one of the time-slots that corresponds with when an event that caused the profile to be updated started or ended.

33. (Currently amended) A system according to claim ~~29~~24, wherein the profiler is configured to store the ~~summarised-behaviours~~ summarized behaviors of the profiling features data in every time-slot during which the event was in progress.

34. (Currently amended) A system according to claim ~~29~~24, wherein the profiler is configured to store the ~~summarised-behaviours~~ summarized behaviors of the profiling features data in a ~~time-slot~~ time-slot by overwriting data already in that ~~time-slot~~ time-slot.

35. (Currently amended) A system according to claim ~~29~~24, wherein the profiler is configured to store the ~~summarised-behaviours~~ summarized behaviors of the profiling features data in a ~~time-slot~~ time-slot by accumulating a new instance of the data with data already in the ~~time-slot~~ time-slot.

36. (Currently amended) A system according to claim ~~30~~24, wherein the ~~time-slots~~ time-slots are configured to wrap, such that if an update to the profiling features goes beyond the end of the ~~last (most recent)-slot~~ time-slot, it wraps around to the ~~first (oldest)-slot~~ time-slot and overwrites the data and creates an event message.

37. (Currently amended) A system according to claim ~~29~~24, wherein the profiler is configured to create an event message when the profiler receives its first input.

38. (Currently amended) A system according to claim ~~24~~34, wherein the second calculations include using event messages to trigger specified rules, the event messages forming part of the data relating to profiled features for post-processing.

39. (Currently amended) A system according to claim ~~29~~24, the profiler is configured to pass information in the start and end time independent memory and time slot memory to the post-processor as part of the profiled features data.

40. (Currently amended) A system according to claim ~~24~~, wherein the post-processor is configured to perform the third calculations by identifying potential indicators of the event sought.

41. (Currently amended) A system according to claim ~~24~~, wherein the post-processor is configured to perform the third calculations by preparing the output data stream for further processing to identify indicators of the event sought.

42. (Original) A system according to claim ~~24~~, wherein the post-processor comprises a temporary storage for storing intermediate results of the third calculations.

43. (Original) A system according to claim ~~24~~, wherein the post-processor comprises means for reconfigurably flagging in the output data stream whether each profiled feature is changed or unchanged.

44. (Original) A system according to claim ~~24~~, wherein the system is for use with a fraud detection system.

45. (Currently amended) A system for configurably profiling data comprising:

means for receiving data from an input data stream; means for pre-processing the received data by performing configurable first calculations thereon to create data relating to profiling features;

means for ~~summarising~~ summarizing the profiling features data over a length of time, wherein the summarizing means comprises i) means for dividing the length of time into a number of non-overlapping time-slots, ii) means for storing the profiling features data in one or more of the time-slots according to time information associated with or included in the profiling features data, and by iii) means for performing configurable second calculations thereon on the profiling features data to create summarised summarized data relating to profiled features; and

means for ~~post-processing~~ post-processing the profiled features data by performing configurable third calculations thereon to create a profiled output data stream for further processing.

46. (New) A method according to claim 1, wherein the output data stream is sent to a fraud detection engine for conducting fraud detection based on the output data stream and wherein the fraud detection engine comprises one or more of a rule-based engine, a scorecard, or a change-detection engine.

47. (New) A method according to claim 1, wherein further analysis is performed on profiling features data with the time-slots to which the profiling features data is allocated.

48. (New) A method according to claim 1, wherein the profile output data stream comprises each of the summarized profiling features data from each of the time-slots along with post-processed summarized profiling features data from each of the time-slots along with event data.

49. (New) A method according to claim 1, wherein the summarizing processing and/or post-processing process occur only for data that has been changed.

50. (New) A system according to claim 24, wherein feedback data is provided from the post-processor to the pre-processor.